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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
TIMBLIN, ROBERT M	

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2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,839	SUZUKI, TAKAMUNE	
	Examiner	Art Unit	
	ROBERT TIMBLIN	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6 and 8-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6 and 8-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action corresponds to application 10/766,839 filed on 1/30/2004. Claims 1, 3-6, and 8-14 have been examined and are currently pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/29/2008 has been entered.

Response to Amendment

Applicant herein amends claims 1, 6, 11, and 14. No claims have been added and no claims have been cancelled in this amendment. Accordingly, claims 1, 3-6 and 8-14 are pending prosecution.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the computer readable medium lacks antecedent basis from

the specification and should be clearly defined as a statutory medium (i.e. precluding the medium being defined as a signal, carrier wave, etc.).

Claim Objections

Claims 1, 6, 11, and 14 are objected to because of the following informalities: in the phrase "...the number of data record is in a fixed range" of the amended claims, "record" should be "records".

Furthermore, the above mentioned claims are objected to because it is unclear if the number of data records determined are the same as the acquired data updated within a predetermined period. In other words, it is unclear if the claims were intended to mean acquiring data records or acquiring the number of data records that were updated so that it can be determined if that number of data records updated is in a fixed range. Clarification is respectfully requested.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ims et al. ('Ims' hereafter) (U.S. Patent 6,505,200). In the following citations, Ims teaches:

With respect to claim 1, An application server that retrieves data from a database using a retrieval request, which includes a retrieval condition, received from a terminal and transmits the data retrieved as a retrieval result to the terminal, comprising:

a cache memory (300) that stores in a correlated form (col. 9 line 53-65, col. 14 line 51-67; i.e. Ims teaches retrieval logic (retrieval condition) in the execution script of the cached object to return a fresh copy of data values to...re-populate the object's output properties (retrieval result). That is, Ims teaches storing the retrieval logic with the result in the same object to describe storing them in correlated form (e.g. they are stored together and are thus correlated)) the retrieval condition (col. 10 line 50-55; e.g. input properties) and the retrieval result (figures 3A-B, col. 5 line 64-67, and col. 10 line 55-60; e.g. output properties);

an update condition setting unit (col. 14 line 33, cache manager) that sets a cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) that indicates when the cache memory is to be updated (col. 13 line 31-65 cache policy), wherein the database update condition includes a number of data records updated in the database within a predetermined period (col. 15 line 42-64, col. 17 line 18-29); and

an update processing unit (col. 16 line 58-62; i.e. processing an update) that reads the retrieval condition from the cache memory (300) upon fulfillment of the cache update condition (col. 16 line 58-67; cache policy), retrieves data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67), and updates the retrieval result in the cache memory (300) corresponding to the retrieval condition (col. 17 line 1-15), wherein

the update condition setting unit (col. 13 line 33, cache manager) sets the cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60) from the database, and determining whether the number of data record is in a fixed range (col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 54-58) and altering the update mode accordingly).

With respect to claim 3, the application server according to claim 1, wherein, when searching the database, the update processing unit acquires a database update condition that indicates when the database is updated and the update condition setting unit sets the cache update condition based on the database update condition acquired (col. 5 line 10-20, col. 10 line 8-15, and col. 13 line 65-col. 14 line 1-7).

With respect to claim 4, the application server according to claim 1, wherein a user sets the cache update condition (col. 10 lines 37-48).

With respect to claim 5, the application server according to claim 1, wherein the update processing unit sets next and subsequent cache update conditions using a date and a time of the retrieval result updated (col. 15 lines 52-60).

With respect to claim 6, A computer readable medium storing a cache program that stores a retrieval request that includes a retrieval condition and that is received from a terminal and a retrieval result retrieved using the retrieval request in a correlated form in a cache memory, reads a retrieval result from the cache memory when a retrieval request identical to the retrieval request stored in the cache memory is received, and that makes a computer execute:

setting a cache update condition (col. 9 line 53-65, col. 14 line 51-67) that indicates when the cache memory is to be updated (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode), wherein the database update condition includes a number of data records updated in the database within a predetermined period (col. 15 line 42-64, col. 17 line 18-29); and

reading the retrieval condition from the cache memory upon fulfillment of the cache update condition (col. 16 line 58-67), retrieving data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67), and updating the retrieval result in the cache memory corresponding to the retrieval condition (col. 17 line 1-15) wherein

the setting includes setting the cache update condition by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60) from the

database, and determining whether the number of data record is in a fixed range(col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 54-58) and altering the update mode accordingly).

With respect to claim 8, the cache program according to claim 6, further comprising acquiring a database update condition (col. 15 line 17-25), when searching the database, that indicates when the database is updated, and the setting includes setting the cache update condition based on the database update condition acquired (col. 15 lines 30-42).

With respect to claim 9 the cache program according to claim 6, wherein the setting includes setting of the cache update condition by a user (col. 10, lines 38-46).

With respect to claim 10, the cache program according to claim 6, wherein the setting includes setting next and subsequent cache update conditions using a date and a time of the retrieval result updated (col. 15 line 59-67).

With respect to claim 11, An application server system comprising:

a plurality of application servers (figure 2, and 5 and col. 9 line 35-40), each of which retrieves data from a database using a retrieval request (col. 5 line 9-30), which includes a retrieval condition, received from a terminal and transmits the data retrieved

as a retrieval result to the terminal, each application server including (abstract and figure 3A-3B).

a cache memory (drawing reference 300) that stores in a correlated form (col. 9 line 53-65, col. 14 line 51-67) the retrieval condition and the retrieval result (figures 3A-B, col. 5 line 64-67);

an update condition setting unit (col. 13 line 33) that sets a cache update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) that indicates when the cache memory is to be updated, wherein the database update condition (col. 13 line 63; e.g. refresh policy, col. 15 line 64; e.g. update mode) includes a number of data records updated in the database within a predetermined period (col. 15 line 42-64, col. 17 line 18-29); and

an update processing unit (col. 16 line 58-62) that reads the retrieval condition from the cache memory upon fulfillment of the cache update condition (col. 16 line 58-67), retrieves data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67), and updates the retrieval result in the cache memory corresponding to the retrieval condition (col. 17 line 1-15), wherein

the update condition setting unit sets the cache update condition by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60) from the database, and determining whether the number of data record is in a fixed range (col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 54-58) and altering the update mode accordingly).

With respect to claim 12, the application server system according to claim 11, wherein the cache update condition of each application server differs from the cache update condition of any other application server (col. 15 line 65-67).

With respect to claim 13, the application server system according to claim 11, wherein the cache update condition of all the application servers is identical (figure. 3B, and col. 18 line 30-35).

With respect to claim 14, A cache update method comprising:

storing a retrieval request received from a terminal that includes a retrieval condition and a retrieval result (figures 3A-B, col. 5 line 64-67) retrieved using the retrieval request int a correlated form (col. 9 line 53-65, col. 14 line 51-67) in a cache memory (drawing reference 300);

reading the retrieval result from the cache memory when a retrieval request is identical to the stored retrieval request (col. 5 line 9-45);

setting a cache update condition based on a database update condition that indicates when the cache memory is to be updated (col. 13 line 31-65 cache policy);

reading the retrieval condition from the cache memory upon fulfillment of the cache update condition (col. 16 line 58-67);

retrieving data as the retrieval result from the database using the retrieval condition (col. 16 line 63-67); and updating the retrieval result in the cache memory corresponding to the retrieval condition (col. 17 line 1-15), wherein

the setting includes setting the cache update condition by acquiring data updated within a predetermined period (e.g. a count of updates, col. 15 line 60) from the database, and determining whether the number of data record is in a fixed range (col. 15 line 54-64; e.g. the number of updates requested within a particular time period (e.g. col. 54-58) and altering the update mode accordingly).

Response to Arguments

Applicant's arguments in the remarks in the reply filed 2/29/2008 have been fully considered but they are not persuasive.

Applicant argues on page 6 of the reply that the input properties of Ims are not equivalent to the claimed retrieval condition. The Applicant states that the input properties, which may be a book title or category name, are not equivalent to a retrieval condition. The Examiner respectfully disagrees because Ims specifies the input properties (i.e. categories or book titles) *are used in retrieving available book inventory information* (Ims, col. 10, line 51-53). In other words, Ims' input properties are essentially values used in the retrieval of information. Because the input properties of Ims are used to retrieve information (i.e. col. 10 line 55, Ims states getting results with the input properties), they are a condition used in the retrieval of results.

Furthermore, the Examiner respectfully submits that the input properties (i.e. the retrieval condition to get results) and the output properties (i.e. results retrieved from the retrieval condition) are stored in correlated form. Specifically, the input and output

properties in Ims are stored in an instance of a [Java] bean (Ims, col. 10 line 54-65). Because these properties are stored *together* in the instance of a bean, they are stored in correlated form. In other words, the retrieval condition (input properties) and retrieval results (output properties) are populated into a bean object.

The Applicant states (second to last paragraph of page 6 of the reply) that since Ims executes the input properties of the cached object to obtain a fresh copy of results...Ims is executing the input properties of the cached object to update the cached object, rather than reading "a retrieval condition from the cache memory upon fulfillment of the cache update condition."

Ims teaches the contents of these objects as specifying them to contain a set of input properties and output properties representing the information to and from the object's corresponding backend data source (Ims, col. 10 line 21-25). The Examiner submits that a [JavaBean] object storing a set of input and output properties as disclosed by Ims teaches "stor[ing] in a correlated form the retrieval condition and the retrieval result." Specifically, Ims teaches the input properties of the object (in a book catalog application) might include category names or book titles to use in *retrieving* available book inventory information (Ims, col. 10 50-53). Ims further teaches the output properties as the beans script may then cause property values such as these to be used to perform a database lookup operation, where the *results* of the lookup are used to populate the object's output properties (Ims, col. 10, line 53-56). Ims even more states the output properties are populated as a result (col. 10 line 63-64). From at least these

citations, it is clear that the input properties of the [JavaBean] object are equivalent to the claimed "retrieval condition." In other words, as Ims' input properties are used in the function of a database lookup to get results, that they sufficiently teach the claimed retrieval condition. Further, Ims' output properties clearly describe the claimed retrieval result as Ims explicitly states "the output properties are populated as a result (col. 10 line 63-64). Because these two (input/output) properties are store as an object, they are stored in correlated form (i.e. the retrieval condition is stored with the results in a single entity).

The Examiner respectfully submits that the refreshing of the results is essentially the same as updating the retrieval result in the cache memory. Further, this refreshing takes place upon a refresh policy (e.g. Ims at col. 14, line 63), which is analogous to the claimed "update condition". In other words, when the refresh policy is evaluated (i.e. determined to be executed, or fulfilled, see Ims col. 13 lines 56-60 for examples of the refresh policy criteria), the bean is re-executed (i.e. with the input properties as retrieval conditions) with retrieval logic to update the retrieval results (which are correlated to the retrieval conditions). Further, while the input properties may be used as an index to locate the objects, the input properties are still used as a condition to retrieve results to populate the object.

Applicant also argues on pages 6-13 that Ims does not disclose the newly amended limitation of setting the cache update condition by acquiring data updated within a predetermined period from the database, and determining whether the number

of data record is in a fixed range" as recited in the independent claims. In light of the foregoing citations from Ims, this feature is submitted to be disclosed. Arguments thereto have been rendered moot.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,239,644 to Seki et al. The subject matter disclosed therein pertains to the pending claims (i.e. storage of retrieval condition with retrieval result).

U.S. Patent Application 2003/0018789 to Ishiguro. The subject matter disclosed therein pertains to the pending claims (i.e. storage of retrieval condition with retrieval result).

U.S. Patent Application 2002/0099698 to Abe et al. The subject matter disclosed therein pertains to the pending claims (i.e. retrieval conditions and result).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/

Examiner, Art Unit 2167

/John R. Cottingham/

Supervisory Patent Examiner, Art Unit 2167